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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,946	11/30/2001	Taeko Hayase	0445-0313P	3991

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EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

C4

Office Action Summary

Application No.

09/996,946

Applicant(s)

HAYASE ET AL.

Examiner

Elizabeth M. Cole

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>041106</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Claims 19-23 were inadvertently omitted from the previous action.

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 9-10, 13-15, 18, 21-23 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 as set forth in the previous action in view of either of JP 03-279452 or JP 02-112460 and further in view of Textile Glossary definition of cellulosic fibers. . JP '866 differs from the claimed invention because JP '866 does not teach incorporating thin fibers into the wipe, (although JP '866 does teach fusion bonding the conjugate fibers at crossover points, which corresponds to the new limitation regarding the fusion bonding of the thick fibers). Both JP '460 and JP '452 teach that nonwoven wipes which comprise both thick and thin fibers have excellent tensile strength. See abstracts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated fine fibers into the wipe of JP '866. One of ordinary skill in the art would have been motivated to incorporate the fine fibers into the nonwoven of JP '866 by the expectation that this would form a nonwoven having enhanced strength. With regard to the particular dtex and fiber length, although JP '460 and JP '452 disclose the fine fibers in terms of the diameter rather than the dtex, it appears that the fibers having a diameter of 0.1-8 microns would meet the claim limitation, and with regard to the length of the fibers, it would have been obvious to have selected the fibers so that the lengths

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of the fine and coarse fibers were similar or the same in order to facilitate the mixing of the two types of fibers. With regard to the limitation that the fabric comprises intersections of thick and thin fibers, since both JP '460 and '452 teach forming wipes from both thick and thin fibers, once the thin fibers were incorporated into the wipe of JP '866 the bonding at crossover points would necessarily be present, especially since JP '866 teaches bonding at crossover points, (pages 29-30). With regard to claim 21, JP '866 teaches 50-97% cellulosic fibers. With regard to claims 22-23, it is noted that JP '866 teaches employing cellulosic fibers. As set forth in the attached Textile Glossary, examples of cellulosic fibers are cotton and regenerated cellulose or rayon. Therefore, since JP '866 teaches cellulosic fibers broadly, then the use of any of the particular types of cellulosic fibers would have been obvious to one of ordinary skill in the art.

3. Claims 2 and 11, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1, 9-10, 13-15, 18 above, and further in view of WO 01/52713 to Kakiuchi et al as set forth in the previous action. With regard to claim 19-20, WO '713 teaches a detergent comprising an electrolyte which is applied to wipes.

4. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-212866 in view of either of JP 03-279452 or JP 02-112460 as applied to claims 1, 9-10, 13-15, 18 above, and further in view of Kobayashi et al, EP 926,288 as set forth in the previous action.

5. Applicant's arguments filed 12/29/05 have been fully considered but they are not persuasive.

6. With regard to the art rejection, Applicant argues that none of the references teach thick and thin fibers having the claimed length and dtex. However, JP '866 teaches fibers having a

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length of 3-25 mm and a fineness of 0.5-50 denier which would encompass the claimed dtex of the thick fibers. JP '866 also teaches bonding at the crossover points of the fibers. JP '866 differs from the claimed invention because it does not teach also adding thin fibers to the cleaning sheet. Both JP '460 and '452 teach mixing thin and thick fibers in order to form a cloth having improved tensile strength. Therefore, one of ordinary skill in the art, in view of the teaching of both JP '460 and '452 would have been motivated to include fibers having the claimed fineness in the airlaid nonwoven of JP '866. One of ordinary skill in the art would have been motivated to make the fine fibers the same general length as the thick fibers which were already present in JP '866 in order to form a nonwoven wherein the two types of fibers could be easily mixed.

7. Applicant argues that none of the references teach the claimed number of tips of the thick fibers on the cleaning sheet. However, since JP '866 teaches a sheet made from fibers having the same length and fineness, the sheet of JP '866 would necessarily have the number of tips.

8. Applicant argues that JP '866 fails to teach the combination of thick and thin fibers with cellulosic fibers. However, JP '866 teaches the combination of thick fibers and cellulosic fibers. Both JP '460 and '452 teach adding the thin fibers as set forth above. Applicant argues that JP '460 and '452 are silent as to the presence of cellulosic fibers. However, JP '866 teaches this feature. JP '460 and '452 provide the teaching of adding the thin fibers to the nonwoven of JP '866 which already has the thick fibers and the cellulosic fibers.

9. Applicant argues that there is no motivation to employ the thin fibers as taught by JP '460 and '452 in the fabric of JP '866 because they are used for different purposes and the fabrics in JP '460 and '452 are meltblown rather than airlaid. However, JP '452 and '460 both teach that

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the material is useful as a wiper. With regard to the fabrics being meltblown, the abstracts do not seem to say that the fabrics are meltblown. Further, Applicant argues that JP '452 and '460 does not teach the thick fibers. However, JP '866 has the thick fibers.

10. With regard to claim 13, JP '866 teaches at claim 31 that the fibrous web comprising the cellulosic fibers and thermoplastic fibers can be laminated with another sheet such as a cotton fabric, (i.e., a cellulosic fabric).

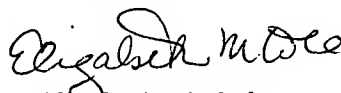
11. Applicant's arguments regarding the 112 1st paragraph rejection is persuasive and that rejection is withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c